An Inaugural Dissertation, on Dysentery

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Dysentery

Cullen has placed this disease in his nosology under the head of profluvia or fluxes with pyrexiæ. "Of the fluxes," says Cullen, "which may be considered as being very constantly febrile diseases, there are only two, the catarrh and dysentery;" the latter being the subject of my dissertation I shall take no farther notice of the former.

The propriety of placing dysentery in nosology under the head of profluviæ is doubted.

Professor Caldwell says it may be more properly classed under the head of phlegmasiæ.

Professor Chapman differing from Cullen in his nosological arrangement of diseases, has more properly classed it with the diseases of the digestive system.

"Dysentery," says Cullen, "is a disease in which the patient has frequent stools, accompanied with much griping, and followed by tenesmus. The stools, though frequent, are generally in small quantity; and the matter voided is chiefly mucus, sometimes mixed with blood. At the same time the natural fæces seldom appear; and, when they do, it is generally in a compact and hardened form."

An attack comes on with chills, terminating with flushings, frequent pulse, griping, soon followed with a propensity to go to stool. In some cases, however, the local affection is the first symptom, in others, it is preceded by loss of appetite and constipation of the bowels.

As the disease advances the evacuations become frequent and painful, and prolapsus ani often takes place. The tormina and tenesmus are increased by flatulence, the alvine discharges

are altered, becoming frothy and mucous or streak=
ed with blood, in some cases there is hemorrhage
of pure blood; coagulated lymph like pieces of
cheese is occasionally found in the stools, now
and then small quantities of natural fæces are
discharged: they are always in the form of har=
dened balls, and these invariably give temporary ease.

Connected with these symptoms, are fever, loss
of appetite, nausea, and sometimes vomiting, the
fever is generally of a remittent kind and observes
a tertian period, commonly of an inflammatory
form though not unfrequently of a typhous cha=
racter; the febrile symptoms generally continue
to accompany the disease during its whole course
especially when it proves early fatal. In other
cases the febrile symptoms almost entirely dis=
appear, while the more proper symptoms of the
disease continue for a long time after.

In the course of the disease whether of a short

or long duration, the matter voided by stool is very various; sometimes it consists only of mucous matter, without there being any blood discharged with it; this is by some named morbus mucosus, and by others, dysenteria alba. This mucous discharge is however, mixed with more or less blood, and it frequently occurs in streaks with the mucus; but often the whole is tinged with blood: in other respects the discharge by stool is of an unusual fetid odour. It is said by some that pure pus is sometimes voided by stool; and frequently putrid sanies, proceeding from gangrenous parts. There are very often mixed with the liquid matter some films of a membranous appearance, and frequently some small masses of a seemingly sebacious matter.

While the stools consisting of these various matters are in many instances, exceedingly frequent, it is seldom that natural fæces appear in them; and when they do appear, it is, as I have mentioned,

in the form of scybala, that is, in somewhat hardened, separate balls. When these are voided, whether by the efforts of nature, or solicited by art, they procure a remission of all the symptoms, and more especially of the frequent stools, griping, and tenesmus.

Accompanied with these circumstances, the disease proceeds for a longer or shorter time. When accompanied with a ardent inflammatory or typhous fever, it often terminates in a few days, with all the marks of a supervening gangrene.

When the febrile symptoms are more moderate, or disappear altogether, the disease is often protracted for weeks and even for months; but even then after a various duration, it often terminates fatally, and generally in consequence of a return and considerable aggravation of the inflammatory and malignant states.

In some cases the disease ceases spontaneously; the frequency of the stools, the griping, and tenesmus, gradually diminishing; while natural stools return. In other cases, the disease with moderate symptoms continues long, and ends in diarrhoea.

This disease is much more prevalent in warm than cold climates; particularly in the East and West Indies. It not uncommonly breaks out in the crew of ships of war and other vessels cruising or trading in these parts; at times proving so malignant as scarcely to leave a sufficiency of men to manage the vessels. It also frequently attacks armies particularly when after or during warm weather, they are any length of time exposed to heavy rains, or are encamped in the vicinity of low and marshy ground.

This disease though found so frequently in tropical climates is by no means confined to those regions, it is not unfrequently to be met with on the coldest parts of the globe, spreading forth its malignity and mortality, proving the instrument of death to many of the human race. It is also very frequently met with in all parts of the United States, and sometimes in as malignant a shape as in any other part of the habitable world.

It attacks the delicate and robust, the young and the aged; and at times excusing none that come within

its ravages, proving generally most fatal to infants and aged persons.

This disease occasionally prevails in all seasons of the year, though it most commonly occurs in summer and autumn. It is often occasioned by cold or moisture succeeding to intense heat or great drought, whereby the perspiration is suddenly checked, and determination made to the intestines. It is likewise occasioned by the use of unwholesome and putrid food, and by noxious exhalations and vapour; such as marsh miasmata &c. It frequently occurs about the same time with autumnal remittent and intermittent fevers and with these it is often blended. Drinking large quantities of cold water when in a state of perspiration frequently produces the disease. Indigestion, exposure to night air; marsh effluvia are very frequently the cause of this disease, and when produced by this cause it is located at first in the stomach, extending from thence through out the whole of the alimentary Canal.

Too free use of fruits has been said to produce this disease, particularly unripe fruit; change of clothing may also produce this complaint, by suddenly checking perspiration, determining too great quantity of fluids to the intestines.

This disease has been said to be contagious by many of the highest modern authorities; among these are the celebrated Doctors Rush Cullen and Darwin.

The former says that dysentery is the offspring of contagion or miasmata, and that it prevails mostly in high situations owing to the coldness of the air checking perspiration, and throwing the fluids upon the bowels, and that he frequently observed it to prevail on elevated places, and bilious fever in low situations adjacent to them; and he says its frequent occurrence in fruit seasons is owing to the debility occasioned by the use of large quantities of this aliment predisposing the bowels to a morbid action.

Cullen says that "dysentery does often manifestly arise from the application of cold, but the disease is always contagious, and by the propagation of such contagion

independent of cold, or other exciting causes, it becomes epidemic in camps and other places". "It is," says he, "therefore to be doubted, if the application of cold does ever produce the disease, unless where the specific contagion has been previously received into the body: and, upon the whole, it is probable, that a specific contagion is to be considered as always the remote cause of the disease."

The doctrine of Darwin is that dysentery is contagious, but that this contagion manifestly arises from the mucous or bloody stools produced from the membrane which lines the intestines, and not from the febrile perspiration or breath of the patient; he contends that fever is the effect, not the cause of contagion, and that it is necessary that we should pay the strictest attention to cleanliness; and the removal of faeces voided as soon as possible for the prevention of contagion.

To deny the existence of contagion in this disease after having it so strongly asserted by such authority; may perhaps appear to some, inconsistent with good reasoning,

and sound pathology; but as far as my observation extends, and from what I am able to collect from the latest authorities, the doctrine of contagion in this complaint is erroneous. In my opinion dysentery has no more pretensions to contagion than intermittent fever, rheumatism or catarrh; that it is an endemic and occasionally prevails epidemically no one will pretend to deny; and its attacking a number of persons, in the same family, or neighbourhood, is no proof that it is contagious. It will be found generally to be produced by a particular state of the atmosphere, checked perspiration, or some local cause, as miasmata, and not the result of contagion.

Diagnosis- Dysentery is easily distinguished from every other disease but diarrhoea. Take one of the mildest cases of dysentery, and one of the most aggravated forms of diarrhoea, their resemblance is so great that it is almost impossible to draw a correct conclusion.

A knowledge of the following circumstances will however be found a tolerable good guide in practice.

Diarrhœa is most commonly unattended by fever, the evacuations more copious and more natural in appearance, and by the griping and tenesmus being more moderate and less frequent than in dysentery. This however I believe is not in all cases important in a practical point of view, the diseases being frequently produced by the same causes and requiring for their cure a similarity of treatment.

Prognosis. To give a correct prognosis of this disease will be found in a great many instances difficult. We frequently have the symptoms of the most favourable character suddenly changed to the most dangerous and malignant form, immedialely frustrating every prospect of hope, when we are anticipating the most favourable issue; however when the symptoms became more moderate, fever in a measure abated, the stools less frequent and more of the natural consistence and colour, the tongue becoming clean, the skin relaxed and a gentle warm perspiration over the whole body, the thirst, moderate, the pulse slow and natural, a

gradual diminution of the tormina and tenesmus, and a returning appetite we may safely anticipate a favourable termination. On the other hand when there is a want of appetite, great thirst, a dark brown tongue, high fever, and delirium, nausea vomiting, great debility, cold and clammy sweats, frequent and small stools, severe griping, tormina and tenesmus, oppressed respiration, fetid evacuations with undigested food mixed with them, cold extremeties, tense abdomen, involuntary discharges petechiæ, hiccough and aphtha making appearance with feeble pulse, the disease in most cases terminates fatally.

Post mortem examinations.- "Upon opening the bodies of the dead," says Cleghorn, "I have constantly found the great guts either entirely mortified, or partly inflamed, partly mortified, the rectum being generally most affected: in many I have seen scirrhous tubercles straitening the cavity of the colon in several places; in a few there were small abscesses in the cellular

membrane of the peritoneum contiguous to the colon and rectum: sometimes the small guts were perfectly sound in appearance; but more frequently their lower part was inflamed, the convolutions being often preternaturally connected to each other by membranes, as the lungs sometimes are to the pleura. In two people the omentum was almost entirely wasted (the small remains of it being quite black), while purulent water was found in the cavity of the abdomen; in several it was inflamed and adhered both to the guts and peritoneum; for the most part the gall-bladder was full of dark bile, and the spleen more or less in a putrid condition."

Treatment. As the intention of this essay is for the degree of doctor of medicine, and having had an opportunity of seeing and attending to several cases of this disease, I do not think it necessary to give in detail, all the remedies that have been recommended by authors; but will confine myself to a few of the most important, and such as I have found most useful in those cases that have come under my own observation.

Dysentery is generally of an inflammatory nature, and demands in its commencement the most copious depletion by the lancet. To be successful however, the patient should lose twenty, thirty, or even sometimes if the state of the system permit, forty ounces of blood.

"The early drawing of blood," says Professor Chapman, "arrests inflammation, arouses the susceptibility of the system to the action of other remedies." "It is," says he, "the very best means of awakening every susceptibility."

"There exist here also," says the Professor, "a violent spasm and constriction producing great pain, in relieving this affection, venesection is unrivalled; by it too we produce relaxation and moistness of the skin".

The next remedies that should be resorted to are purgatives, which of this class of remedies is to be prefered; there appears to be a great contrariety of opinion, castor oil is most commonly used, "and in lenient cases," says Professor Chapman, "it may answer very well, but to do good it must be given liberally, to the amount of several ounces in the day, and even then, it runs through the bowels almost unchanged, producing very slight evacuations of fæces". Mercurial purgatives are much more preferable, they more effectually evacuate the bowels without disturbing the stomach, while the castor oil is a nauseous and disagreeable remedy, and is very often objected to by the patient. The oil is said to posess the advatages of gently purging away offensive matters, and at the same time shea=

thing the delicate surface of the intestines. The quantity of oil is however too small to answer such an end.

For the purpose of evacuating completely the contents of the bowels, it is best, to commence with calomel given in a tolerable large close, followed in an hour or two, with repeated doses of some mild purgative medicine; here the castor oil may perhaps be found useful, to this however I greatly prefer Epsom salts; the stomach in most instances will be found very irritable, the latter will frequently remain without producing the least distress, while the former will be found nauseous and is sometimes ejected by vomiting.

Rhubarb has been highly commended: but it will generally be found improper in the commencement, or as long as any degree of inflammation remains. I have used it in a few cases at the commencement of an attack, in every instance the discharge of blood by stool was increased, and the tormina and tenesmus aggravated.

How far we should carry our purgative plan, has been questioned; "a good general rule," says Professor Chapman, "is to continue them, until natural fæces be procured."

Emetics- It was usual with Sydenham, and his example has been imitated by many, to commence the cure of dysentery with exciting vomiting, which he advised to be followed up by copious draughts of some thin beverage, to cleanse more completely the stomach. "Of the propriety of this practice," says Professor Chapman, "I am not prepared to speak from any personal experience. "It may occasionally be useful in the early stage of the disease, where the stomach is loaded as sometimes happens with bilious or foul matter, creating nausea and distress. "Cases of this sort are common in countries subject to intermittent fever, and the bowel affection wearing this character, the remedy becomes necessary."

Highly as this remedy has been extolled by most writers, it does not appear to me to be always necessary in dysentery, and except under circumstances cited above,

it may be, with safety dispensed with, but symptoms occurring indicative of their use, we may resort to tartarized antimony alone or combined with Ipecacuanha: an excellent mode however of administering emetic medicines in this complaint, is in combination with some one of the purgatives: for this purpose the tartarized antimony may be combined with the Glauber or Epsom salts. The usual effect of this combination is a copious evacuation of the alimentary canal.

The remedy that should be resorted to after purgatives, is nauseating doses of Ipecacuanha.

Dysentery is sometimes attended with a considerable discharge of pure blood from the bowels, amounting in some instances almost to hemorrhage. In the course of the summer of eighteen hundred and twenty five, I had, under my care between thirty and forty cases, a majority of them were children, to whom it proved very fatal in the neighbourhood of my residence. Almost all of these cases were attended with a considerable

discharge of blood by stool, great thirst, heat, and dryness of skin.

After administering a cathartic of calomel, followed by a dose of Epsom salts, as soon as they began their operation on the bowels; I commenced with small doses of Ipecacuanha, repeated every hour or two throughout the day; and at bed time I directed it to be combined with an opiate; if there were not much febrile action, but when interrupted in the use of opium by the excitement of the system, I advised the Ipecacuanha to be continued alone throughout the night, as directed above in the day time.

In every instance that I administered the Ipecacuanha as mentioned above, the bloody stools tormina and tenesmus were in a few hours considerably relieved, and a gentle relaxation and moisture of the skin took place. Kept up for a few days, the bloody stools were removed and in a majority of instances the tormina and tenesmus ceased to be troublesome.

* See Caldwell's Letter

After the bowels have been thoroughly evacuated, and febrile excitement sufficiently reduced by the lancet, opium may be resorted to for the purpose of allaying pain, and determining to the surface, to fulfil more completely both of these indications, it will be found necessary to combine a small portion of Ipecacuanha with the opium, say in the proportion of half a grain of the latter to from two to three grains of the former, to be repeated every two or three hours, agreeable to the urgency of the case. This will be found effectually to relieve the tormina and tenesmus, determine to the surface, and promote sleep.

✱ "Anodyne injections consisting of opium dissolved in mucilage of gum arabic flax-seed tea or common starch are sometimes better retained, and prove more efficacious than opiates by the mouth.

"An excellent remedy to allay irritation and tenesmus after the bowels have been sufficiently evacuated, is an injection composed of from half a pint to three gills of melted butter, free from salt: this may be re-

✱ See Caldwell's Cullen

Pentecostal

peated every three or four hours; or oftener, should circumstances require it. It is important that the butter be free from rancidity as well as salt.

"Fomentations and anodyne liniments to the abdomen have been found at times to be of infinite service

"In every case where the disease is likely to assume a chronic form, more especially there being reason to apprehend the existence of hepatic affection, a moderate salivation is the most promising remedy.

"If the pain continue obstinate, and the abdomen be tumefied hard and sore to the touch, in addition to the fomentations and anodyne liniments the applications of cups or leeches and blisters to it will be found indispensable.

"On various occasions through out the course of the disease mucilaginous injections will be found useful and necessary; they may consist of flax-seed tea, barley water, a solution of gum arabic in water, or a decoction of starch. The proper time for their administration the

judgment of the practitioner alone can direct. An important object to be attained by them is an alleviation of tenesmus. 7

"From the commencement to the close of this complaint, the drinks in general should be diluting, mucilaginous and mild, such as flax-seed tea barley water, rice water, slippery elm tea &c."

This disease is sometimes blended with intermittent fever when this is the case, it is the opinion of professor Chapman that we should first cure the dysentery with the usual remedies, disregarding the intermittent until this is accomplished. He says that bark never fails to do harm when administered under such circumstances, it is extremely offensive to the stomach and bowels when irritable and inflamed as is the case here.

Thus I have given a cursory detail of the most important remedies that will be found necessary in the cure of dysentery; but in some instances, they

and every other means of art will fail. It may be proper perhaps to add that in the sinking condition, we may resort to the liberal use of stimulants, such as wine, wine whey, carbonate of ammonia and finally to the spirits of turpentine, keeping the discharge by the bowels in due bounds, by the free use of Opium.